

Notice of Allowability

Application No.

09/667,714

Examiner

CHAN S PARK

Applicant(s)

KOJIMA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/18/04.
2. ☒ The allowed claim(s) is/are 1,3,5 and 6.
3. ☒ The drawings filed on 30 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


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SUPERVISORY PATENT EXAMINER
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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/04 has been entered.

Response to Amendment

2. Applicant's amendment was received on 10/18/04, and has been entered and made of record. Currently, **claims 1, 3, 5 and 6** are pending.

Allowable Subject Matter

3. **Claims 1, 3, 5 and 6 are allowed (renumbered as claims 1-4, respectively).**
4. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record do not teach or suggest the limitation of updating the subsequent replacement schedule copy number for said component as stored in said non-volatile memory by adding a lifespan copy number previously determined for said component to the total print copy number at the time of replacement.

As noted by the applicant, see pages 5 and 6 of REMARKS filed on 10/18/04, the Total Print Number Count 1 at the time of replacement " $Y + \alpha$ " is added to the replacement schedule copy number " Y " for the toner cartridge and the resulting value " $Y + \alpha + Y$ " is overwritten as the subsequent replacement schedule copy number (i.e., if the toner cartridge is exchanged at 30,100 copies, $Y=30,000$ and $\alpha =100$, then 30,100, $(Y + \alpha) + 30,000$, $(Y) = 60,100$, $(Y + \alpha + Y)$). Thereupon, when the total printed copy number reaches 60,100, the lifespan of the toner cartridge is judged to be expired.

Regarding claim 3, the prior art of record do not teach or suggest the limitation of updating the subsequent replacement schedule time period for said component as stored in said non-volatile memory by adding a lifespan time period previously determined for said component to the total printing time at the time of replacement.

5. Some of the prior art related to the apparatus are cited and detailed below which fail to teach the limitation of independent claim 1 as stated above.

The Garr et al. reference (U.S. Patent No. 5,802,420) discloses an image forming apparatus (laser printer 10) containing a plurality of replaceable components (toner and papers), comprising:

a non-volatile memory (EEPROM) for storing a total print copy number (pages printed 516 in fig. 7) updated each time a prescribed number of print copies are made (col. 18, lines 50-52), and a subsequent replacement schedule copy number for each component (col. 18, lines 15-30); and

a controller (printer) for judging the lifespan of each component (toner) on the basis of a comparison between said total print copy number and said subsequent replacement schedule copy number of each component (col. 10, lines 55-60 and fig. 7).

However, Garr et al. does not teach or suggest the limitation of updating the subsequent replacement schedule copy number for said component as stored in said non-volatile memory by adding a lifespan copy number previously determined for said component to the total print copy number at the time of replacement.

6. Some of the prior art related to the apparatus are cited and detailed below which fail to teach the limitation of independent claims 1 and 3 as stated above.

The Kimizuka reference (U.S. Patent No. 6,173,129) discloses an image recording apparatus that operates a counter acting as a print timer (or counter for counting the number of printed sheet) in a printing operation. In a case where a counted value reaches a predetermined value, the image recording apparatus sets a waiting state, stops power supply from a high voltage power supply unit according to a predetermined sequence, starts to operate a nonvolatile memory in a cartridge

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according to a predetermined procedure, reads data from the memory, adds the read data to the counted value of the print timer, and then writes an added result (col. 4, lines 37-48 and col. 5, lines 18-59).

However, Kimizuka does not teach or suggest the limitation of updating the subsequent replacement schedule time period for said component as stored in said non-volatile memory by adding a lifespan time period previously determined for said component to the total printing time at the time of replacement.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S PARK whose telephone number is (703) 305-2448. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan S. Park
Examiner
Art Unit 2622

csp
January 26, 2005


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